

Immunization Newsletter

Summer 2014

Are Data Loggers Really Important?

Data loggers are electronic thermometers that monitor and record vaccine temperatures continuously. They record temperatures all the time including weekends and overnights when providers are not available to check temperatures. Unlike other thermometers, data loggers provide a summary of temperatures recorded 24 hours a day/7 days a week. Providers who use data loggers can download the data on their computer and tell manufacturers the exact duration for out of range temperatures. Using the

accurate data, manufacturers can give information on the viability of vaccines. The Centers for Disease Control and Prevention (CDC) strongly recommends the use of data loggers for vaccine temperature monitoring. The North Dakota immunization program implemented data loggers in May, 2014, delivering free FridgeTag2® thermometers to providers who requested them. The new data logger generates a PDF file with summary of temperature readings for 60 days; providers can then simply email the PDF file to

dohtemplogs@nd.gov.

Providers do not need to download software to their computer; providers simply connect the data logger to USB port and get the PDF file right away. Did you get the data loggers yet? If not, contact the immunization program.



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Best Practice: Reminder/Recall

A best practice for increasing immunization rates is Reminder Recall. A tool to use for this process can be the North Dakota Immunization Information System (NDIIS). You can choose the age and vaccines you want to send reminder/recall notices for. A list of patients and which vaccines are due or past due is created. Start small, try selecting the age range of "24 months." Don't check any vaccines. If no vaccines are checked, the recall report will include all vaccines that the child is due for. Check "yes" for "include patients overdue for vaccinations." Enter "30" for the number of days overdue. Then click "run reminder recall." You can then print labels, postcards, or download a list to excel to send letters or postcards or make phone calls.

New Vaccine Information

•In April Sanofi Pasteur changed their packaging for ActHIB®. The new packaging established new National Drug Company (NDC) numbers and lot numbers for the inner components of the vaccine packages, as well as modified the carton to incorporate dividers between each of the vials to prevent movement within the box.

•Menactra® doses currently being sent from McKesson (CDC's distributor) are likely to have dating between four and seven months for the next several months. In orders to better manage the provider's inventory, smaller orders will be placed.

•Sanofi Pasteur has begun to

phase in a new cap color for Pentacel® vaccine. The half-moon cap is being replaced with a solid blue cap. There is no change to the product or the NDC. Providers may continue to see the old cap for a brief time until the new packaging is phased into the market.

•As of June 1, 2014, Merck is adjusting its delivery schedule for Zostavax® and Varivax®. The one benefit of this change is as shipping costs continue to increase, Merck will not have to pass these increased costs on to the providers and these changes allow Merck to continue to invest in packaging and delivery

improvements. What will not change is the delivery for orders of ProQuad® regardless of day ordered.

Order Received by Merck before 3 PM	Delivery Day	
	VARIVAX, ZOSTAVAX	ProQuad
Monday	Wednesday	Tuesday
Tuesday	Thursday	Wednesday
Wednesday	Friday	Thursday
Thursday	Monday	Friday
Friday	Tuesday	Tuesday
Saturday	Wednesday	Tuesday
Sunday	Wednesday	Tuesday

Results of School Located Influenza Vaccination Clinics in North Dakota During the 2013-2014 School Year

School located influenza clinic coalition members voluntarily collected data this past fall. Grade level, school, Vaccines for Children Program (VFC) status, vaccine presentation and date of clinic were among variables collected.

Flu clinics were held between August and December, with the majority of clinics being held in October and November. Among the schools visited, 22% of enrolled students were vaccinated against influenza. 7,096 total students were vaccinated at school located vaccination clinics and 1,382 (19.5%) of students were VFC eligible. The majority of doses given were Flumist® (60.8%). Some school clinics offered vaccination to staff members and parents; a total of 195 adults were vaccinated at the school located vaccination clinics. School located influenza vaccination clinics were held in 115 different schools in North Dakota; these schools were located in 15 different counties.

Sixty-eight (59.1%) schools were identified as urban and 47 (40.9%) schools were identified as rural. When comparing vaccination rates between rural and urban schools, schools classified as rural had a vaccination rate of 25.6%, while schools classified as urban had a 21.5% vaccination rate.

Certain variables were missing in data submitted by local public health units; therefore, VFC eligibility and Flumist® administration may be underrepresented.

“When comparing vaccination rates between rural and urban schools, schools classified as rural had a vaccination rate of 25.6%, while schools classified as urban had a 21.5% vaccination rate.”

LAIV vs. IIV in Children:

The Advisory Committee on Immunization Practices (ACIP) recommends that all children, including healthy children, ages 6 months – 18 years be adequately immunized against influenza. However this is the first influenza season where the ACIP has expressed a preference for one influenza vaccine over another. When both live attenuated influenza vaccine (LAIV4) and inactivated influenza vaccine (IIV) are available, LAIV4 should be used for healthy children ages 2 through 8 who have no contraindications or precautions to LAIV4. If LAIV4 is not immediately available, vaccination should not be delayed and IIV should be used.

New WHO Polio Vaccination Requirements for Travel by Residents of and Long-term Visitors to Countries with Active Polio Transmission

On May 5, 2014, the Director-General of the World Health Organization (WHO) accepted the recommendations of an Emergency Committee, and declared the international spread of polio to be a public health emergency of international concern (PHEIC) under the authority of the International Health Regulations (IHR) (2005) and issued vaccination requirements for travelers in order to prevent further spread of the disease. IHR is an international agreement among countries to prevent, protect or control the international spread of disease. All countries have agreed to be bound by recommended activities under IHR.

The “temporary recommendations” in response to this PHEIC, the second ever to be issued under IHR, will be reviewed and possibly revised by WHO’s Emergency Committee in three months. The burden for enforcement of the polio vaccination requirements under this PHEIC declaration lies with polio-affected countries (termed “polio-infected” by WHO). At this time, the United States government is not expected to implement requirements for entry into the United States.

U.S. clinicians should be aware of possible new vaccination requirements for patients planning travel for greater than four weeks to countries with ongoing poliovirus transmission. The WHO statement names 10 such countries, three designated as “exporting wild poliovirus” (Cameroon, Pakistan and Syria [Syrian Arab Republic]) that should “ensure” recent (4 to 52 weeks before travel) polio boosters among all departing residents and long-term travelers (of more than 4 weeks), and an additional seven countries “infected with wild

poliovirus” (Afghanistan, Equatorial Guinea, Ethiopia, Iraq, Israel, Somalia and Nigeria) that should “encourage” recent polio vaccination boosters among residents and long-term travelers.

At this time, CDC is not aware of what specific steps will be taken by these 10 countries to comply with the PHEIC declaration. U.S. citizens who plan to travel to any of the polio infected countries should have documentation of a polio booster in their yellow International Certificate of Vaccination in order to avoid delays in transit.

Recommendations

Because of the substantial progress of the polio eradication initiative in 2012–2013, and in order to harmonize CDC recommendations with WHO recommendations, CDC now recommends an adult inactivated poliovirus (IPV) booster dose for travelers to countries with active WPV circulation. Countries are considered to have active WPV circulation if they have ongoing endemic circulation, active polio outbreaks, or environmental evidence of active WPV circulation. Travelers working in health care settings, refugee camps, or other

humanitarian aid settings in these countries may be at particular risk.

Travelers to or from all 10 countries should be given a WHO/IHR International Certificate of Vaccination or Prophylaxis (www.who.int/ihr/ports_airports/icvp/en/) to record and serve as proof of their polio vaccination.

Guidance

CDC routinely recommends that anyone planning travel to a polio-affected country be fully vaccinated against polio and that, in addition, adults should receive a one-time booster dose of polio vaccine. Because of the recent PHEIC declaration, anyone staying in any of the polio-affected countries for more than four weeks may be required to have a polio booster shot within the 4 weeks to twelve months prior to departure from that country. This booster should be documented in the yellow International Certificate of Vaccination in order to avoid delays in transit or forced vaccination in country. Either oral poliovirus vaccine (OPV) or inactivated poliovirus vaccine (IPV) may be used for this booster, however only IPV is currently available in the United States.

For more information:

• www.polioeradication.org/Portals/0/Document/Emergency/PolioPHEICguidance.pdf

“The WHO statement names 10 such countries, three designated as “exporting wild poliovirus”

Health-care Providers Urged to Maintain a High Awareness for Measles

Background:

From January 1 through July 25, 2014, there have been 585 reports of confirmed measles cases in the United States. This is the highest number of cases reported in over 15 years for the same time period. The cases have been reported from 17 different states, with most cases reported from California, Ohio and New York City. Of the 187 cases, 280 were importations from other countries, of which 22 (49 percent) were from the Philippines. Sixty-nine percent (200) of cases have occurred in individuals who were either unvaccinated or had an unknown vaccination status. Among the 195 U.S. residents who were unvaccinated, 85 percent had philosophical objections to vaccination.

Diagnosis:

Measles is an acute disease characterized by fever, cough, coryza, conjunctivitis, and a maculopapular rash lasting more than three days. Healthcare providers should maintain a high awareness for measles among febrile patients with rash. Patients presenting clinical symptoms compatible with measles should be asked about recent travel abroad, contact with returning travelers, and their vaccination status should be verified. Measles cases have been initially misdiagnosed as Kawasaki disease, dengue, and scarlet fever, among other conditions, so healthcare providers should consider measles in the differential diagnosis of these diseases.

The clinical case definition for measles is:

- A generalized, maculopapular rash lasting ≥ 3 days

- A temperature $\geq 101^{\circ}\text{F}$

- Cough, coryza, or conjunctivitis (the three Cs)

Transmission:

Measles transmission is primarily person to person via large respiratory droplets, but airborne transmission can occur.

Respiratory droplets can remain infectious for approximately two hours in the environment. The incubation period for measles is usually 8 to 12 days, although symptoms may occur as early as seven or late as 21 days after exposure.

Although measles is no longer an endemic disease in the United States, it remains endemic in several countries of the world, including some countries in Europe. Large outbreaks currently are occurring in the Philippines and Southeast Asia. International travel highlights the ongoing risk of measles importations, the risk of spread in susceptible populations, and the need for a prompt and appropriate public health response to measles cases.

Because of the severity of the disease, people with measles commonly present to a physician's office or emergency room and pose a risk of transmission to other patients and health-care personnel in these and in inpatient hospital settings. Health-care providers should remain aware that measles cases may occur in their facility and that transmission risks can be minimized by ensuring that all health-care personnel have evidence of measles immunity and that appropriate infection control practices are followed.

Evidence of natural measles infection, of measles immunity, or of receipt of two doses of measles vaccine should be documented for all health-care workers. Health-care facilities should consider recommending a dose of MMR vaccine for unvaccinated workers born before 1957 who are at risk for occupational exposure to measles and who do not have a history of measles disease or laboratory evidence of measles immunity.

To prevent transmission of measles in health-care settings, airborne infection control precautions should be followed stringently. Suspected measles patients (i.e., people with febrile rash illness) should be removed from emergency departments and clinic waiting areas as soon as they are identified, placed in a private room with door closed, and asked to wear a surgical mask, if tolerated. In hospital settings, patients with suspected measles should be placed immediately in an airborne infection (negative pressure) isolation room if one is available and, if possible, should not be sent to other parts of the hospital for examination or testing purposes.



Vaccination for Measles

Vaccination:

Two doses of measles vaccine, as a combination MMR or MMRV, separated by at least four weeks are routinely recommended for all children 12 months of age and older. MMR is routinely administered at 12 – 15 months of age and 4 – 6 years of age. Children are required to be age appropriately vaccinated with MMR for entry into childcare, kindergarten through twelfth grade, and college in North Dakota. Studies indicate that 99 percent of people who receive two doses of MMR are immune to measles. All adults born in 1957 and after should have documentation of at least one dose of MMR or other evidence of measles immunity. Birth before 1957 is generally considered acceptable evidence of immunity to measles for the general public.

Susceptible individuals with a known or highly probable exposure, depending on timing and age, can be treated with MMR vaccine or IG to prevent or modify measles.

MMR vaccine, if administered within 72 hours of initial measles exposure, may provide some protection. IG is indicated for susceptible household contacts of measles patients, particularly those for whom the risk of complications is increased and who cannot receive MMR vaccine (i.e., infants age 12 months or younger, pregnant women, or immunocompromised people). Vaccination should be offered at any interval following exposure in order to offer protection from future exposures. If administered within six days of exposure, IG can prevent or modify measles in a susceptible person. If IG is administered, health-care providers should delay MMR vaccination for five months. IG should not be administered within two weeks of prior MMR vaccination. More information about the Advisory Committee on Immunization Practices (ACIP) recommendations for measles vaccination and the elimination of measles can be found at www.cdc.gov/mmwr/preview/mmwr.html/rr6204a1.htm.

The high number of confirmed cases highlights the ongoing risk of measles in unvaccinated people, the risk that unvaccinated people pose by transmitting measles to others, including infants too young to be vaccinated and others medically contraindicated to be vaccinated. Maintaining high levels of vaccination is pertinent in controlling the spread of measles. Timely and aggressive application of isolation, quarantine (when needed), post exposure vaccination or immune globulin prophylaxis and other important control measures is critical.

International Travel:

Healthcare providers should encourage timely vaccination of everyone who plans to travel internationally and who don't have evidence of measles immunity. Infants ages six through 11 months should receive one dose of MMR vaccine. Two doses of MMR are recommended for travelers, ages 12 months and older, with a minimum interval of four weeks between doses.

Lunch and Learn

"Lunch and Learns" have been well received and the immunization program will continue the presentations through 2014. The presentations are approximately one hour in length and are available for one contact hour of continuing education credit. "Lunch and Learn" will always be held the second Wednesday of each month at noon CST. After each presentation, the post-test must be completed for credit. The presentations are all archived with slides on the immunization program website. The credit is available for two weeks after the original presentation. The immunization program would like to encourage providers to share topics they would like to see covered by "Lunch and Learns." An email will be sent the first and second Monday of each month to allow providers time to register for the presentation. If multiple people will be watching from one location, we recommend having one person register as lines are limited.

September 10

October 8

November 12

December 10



Storage and Handling

Vaccine Temperature Best Practices for Refrigerated Vaccines–Fahrenheit (F)

- Store vaccine at ideal temperature of 40°F.
 - Acceptable range of 35°F -46°F
- Record temperatures twice daily
- Take action if out of range
 - Contact the Immunization Program Immediately and call the manufacturer directly.
 - Tell them the total amount of time the refrigerator was out of range. Do not use vaccine.
- Use vaccine storage best practices
 - DO:
 - Make sure the refrigerator door is shut!
 - Replace crisper bins with water bottles to help maintain consistent temperature
 - Label water bottles “Do Not Drink”
 - Leave 2-3 inches between all vaccines containers and refrigerator walls
 - Post “Do Not Unplug” signs on refrigerator and by electrical outlets
 - DON'T
 - Use dormitory-style refrigerator
 - Use top shelf for vaccine storage
 - Put food or beverages in refrigerator
 - Put vaccines or diluent in doors or floor of refrigerator
 - Drink or remove water bottles

Never freeze refrigerated vaccine!

Vaccine Temperature Best Practices for Frozen Vaccines–Fahrenheit (F)

- Store vaccine at ideal temperature range of -58°F to 5°F
- Record temperatures twice daily
- Take action if out of range
 - Contact the Immunization Program Immediately and call the manufacturer directly.
 - Tell them the total amount of time the refrigerator was out of range. Do not use vaccine.
- Use vaccine storage best practices
 - DO:
 - Make sure the freezer door is shut!
 - Use ice packs to help maintain consistent temperature
 - Leave 2 to 3 inches between all vaccines and freezer walls
 - Post “Do Not Unplug” signs on freezer and by electrical outlets
 - DON'T:
 - Use dormitory-style refrigerator/ freezer
 - Use combo fridge/freezer unit
 - Put food in freezer
 - Store vaccines in the door



Vaccine Return and Wastage

Vaccine Return: All non-viable vaccine that needs to be returned to McKesson because it has expired, spoiled because of a temperature excursion or due to a vaccine recall. Multi-dose vials (MDVs) can only be returned if no doses have been drawn from the vial. Partially used MDVs must be documented as vaccine wastage.

Vaccine Wastage: All non-viable vaccine that is not able to be returned to McKesson. This includes broken vaccine vials or syringes, vaccine drawn into a syringe but not administered, lost or unaccounted for vaccine and partially used MDVs.



Notify the Immunization Program if any vaccine must be wasted as a result of exposure to temperatures outside of the acceptable range. Failure to report wasted vaccine to the Immunization Program may result in your facility no longer being able to receive state-supplied vaccine.

NDIIS PROCEDURE FOR RETURNING NON-VIABLE VACCINE TO MCKESSON

1. If expired or non-viable vaccine must be returned to McKesson, enter into the NDIIS return and wastage module.
2. McKesson will send a return label in the mail. If a pickup needs to be scheduled please contact the Immunization Program. Otherwise the shipment can be sent anytime UPS is at your facility. Providers should not contact UPS directly to schedule a pickup, as this may result in the provider being charged for the shipping fees.
3. The vaccine return packing slip will be printed from NDIIS.
4. Prior to shipping unopened, non-viable vaccine, you must have a packing slip from NDDoH AND a shipping label from McKesson.
5. Ship unopened non-viable vaccine and a copy of the packing slip in a shipping container received from previous vaccine shipments.
6. **DO NOT** ship viable vaccine to McKesson.
7. **DO NOT** ship viable or non-viable vaccine to the NDDoH.

Return all unopened vials and manufacturer's pre-filled syringes of non-viable vaccine to McKesson.

Vaccine provided by the NDDoH should never be discarded. The one exception would be open vials or syringes, including multi-dose vials from which doses have already been withdrawn. These can no longer be sent back to McKesson. A wastage form must still be completed and submitted to the NDDoH, and the open vials and syringes should then be discarded per your facility's policy.

All spoiled/wasted/expired state-supplied vaccines must be returned to McKesson within six months of spoilage/expiration. When returning vaccine it should be placed in a shipping container from a previous shipment of vaccine from McKesson. Packing material should be used so that the vaccine cannot move around in the container. The vaccine does not need to be kept at refrigerator or freezer temperatures therefore no temperature monitoring devices or cool packs need to be used. All containers returned to McKesson should have a packing slip created by the immunization program. A McKesson shipping label should be attached to the outside of the container and all old shipping labels or bar codes should be removed or crossed out.

Please feel free to contact the NDDoH Immunization Program with any questions or concerns at 701.328.3386 or toll-free at 800.472.2180.



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We're on the Web!

Web site address

<http://www.ndhealth.gov/immunize/>

Calendar of Events

August is National Immunization Awareness Month

The National Immunization Conference is
September 29 and 30, 2014 in Atlanta, GA.

Fall 2014 National Foundation for Infectious
Disease conference is November 7 through the 9,
2014 in Houston, TX.

2015 Annual Conference on Vaccine Research is
April 13 through the 15, 2015 in Bethesda, MD.

AIRA Post-National Immunization Conference
Workshop is October 1, 2014, in Atlanta, GA.

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